ABSTRACT

A system and software for improving the performance of processors by incorporating an execution unit operable to decode and execute single instructions in an instruction set comprising (a) group instructions that operate on a plurality of data elements in partitioned fields of a register to produce a catenated result, (b) aligned memory operations that move data between memory and register where the memory operand is aligned, and (c) unaligned memory operations where the memory operand is unaligned.